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ABSTRACT

A study investigated the effect on reading comprehension in English as a Second Language (ESL) of formally incorporating four reading strategies into reading instruction. The four strategies taught were cognitive, memory, compensation, and test-taking strategies. Subjects were 29 students at the University of Alabama of varying language backgrounds in an academic English program. The sample consisted of 46.7% Japanese, 16.7% Korean, 10% Saudi Arabian, 6.7% Chinese, 6.7% Brazilian, 6.7% Venezuelan, 3.3% Costa Rican, and 3.3% Thailander students. They were randomly assigned to experimental and control groups, and the experimental group was offered pre-reading activities. Both groups then read two texts of differing difficulty levels, each testing use of two different reading strategies. Results show that the introduction of reading strategies, particularly memory, cognitive, and compensation strategies, did help students make gains in reading comprehension, supporting previous research findings. Introduction of various techniques and strategies was also found to intensify the student's interaction with the text. Instruction in test-taking strategy did not improve comprehension. Interaction effects between strategy and language proficiency level were not statistically significant. (Contains 18 references.) (MSE)

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The Effects of Teaching Reading Strategies On Improving Reading Comprehension For ESL Learners

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Introduction

Empirical research indicates that in most reading classrooms students have received inadequate instruction on reading skills and strategies (Miller & Perkins, 1989). There is a lack of connection between reading instruction and reading activity. The teacher's emphasis is often put on the production of comprehension rather than the processing skills (Numrich, 1989). The present study attempted to find a solution to the problem. It attempted to maximize the teacher's assistance by incorporating reading strategies into pre-reading instruction.

Based on research and experience, four major reading strategies were identified by the researcher and their effects on comprehension were tested. They were cognitive strategy, memory strategy, compensation strategy, and test-taking strategy. It was hypothesized that incorporating reading strategies into pre-reading assistance might improve reading comprehension for ESL learners.

Literature Review

Literature on reading strategies is abundant in recent years though different people have addressed the issue from different perspectives. Some researchers attempted to identify reading strategies available to various groups of readers. Others, based on their theoretical and empirical research, recommended strategies and techniques which can be used to facilitate reading comprehension, Still others have investigated the effects of various reading strategies on improving comprehension. In this

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section I will examine some of the research studies related to reading strategies.

Strategies that have been identified and recommended

One of the research trends in recent years was to investigate the working of the human mind in the reading process. Researchers were interested in finding out the techniques that enabled the reader to better process, understand, and memorize written information. Pritchand(1990), for example, conducted a study with a group of 11th grade readers. He asked his subjects to give verbal reports of the reading strategies they had just used for a written text. Based on the analysis of the reading strategies reported by the students, Pritchard compiled a taxonomy of 22 reading strategies in five categories: (a) developing awareness, (b) accepting ambiguity, (c) establishing intrasentential ties, (d) establishing intersentential ties, and (e) using background knowledge. The interesting thing about Pritchard's study was that the strategies listed were spontaneous. The researcher's job was no more than discovering what was already available to the reader and organizing various techniques and strategies in a meaningful way.

For some researchers, identifying reading strategies should not be an end in itself. They argued that reading strategies should be integrated into classroom instruction. Numrich(1989), for example, described five classroom strategies for improving the comprehension of the content areas for ESL students. The five strategies focused on (a) the skills of predicting based on prior knowledge, (b) anticipating what will be read next, (c) using statements to check their comprehension of a text during reading, (e) analyzing text organization by looking for specific pattern, and (f) classifying to facilitate comprehension of similarities and differences. According to Numrich, the strategies can help students learn English as well as prepare them for higher-level thinking skills in the subject areas. He claimed that his strategies taught rather than test comprehension.

One problem encountered by many readers is unfamiliar vocabulary. Using context clues has been suggested by researchers as a solution to that problem. In their research paper, Sinatra and Dowd(1992) suggested a comprehension framework for the use of context clues. The framework has two major divisions: syntactic clues and semantic clues. The syntactic clues were related to grammatical structure whereas semantic clues involved intra- and inter-sentence meaning relationship. Sinatra and Dowd argued that, by understanding how the writer used grammar, the reader would have a direct key to unlocking a word's meaning. The reader should also use semantic clues such as restatement, use of examples and summary clues when guessing the meaning of a new word.

The study of memory strategy is another focus in reading research. Under the heading of memory strategies a number of techniques have been identified such as creating mental/visual images, grouping and story mapping. Based on a survey administered to a group of 47 primary school teachers, Olsen and Gee(1991) recommended a number of empirically or theoretically-validated strategies for assisting young children to read, comprehend, and learn from content area material. The strategies included (a) semantic mapping where students related new words and concepts to words and notions they already knew, (b) K-W-L (the reader asked himself/herself "What I know? What I what to learn? What I learned), (c) organizing information in meaningful patterns(sequence pattern, descriptive pattern, cause/effect pattern, comparison/contrast pattern, problem/solution pattern), (d) group summarizing, and (e) use of visual imagery. Olson and Gee argued that "visual images generated in the process can help children link their prior experiences to new ideas, thus building richer schemata for the topic. Richer schemata will, in turn, provide the foundation for greater understanding the next time the same or related content is read"(p. 306). Reutzel(1984) recommended the use of story map to help the reader identify meaningful relationships among concepts or events. providing an

organized framework for representing new concepts or events, and producing a graphic organizer were emphasized in his design of a story map. Reutzel argued that a story map could facilitate the schema building process and eventually improve reading comprehension.

Another strategy that has been recommended by some researchers is concerned with taking tests. Jacob(1985), for example, made two suggestions to test takers: (a) Before reading a passage, the test taker should first read questions and answers. This will help the reader focus on the relevant information in the passage. (b) The test taker should answer each question by a process of elimination (for multiple-choice questions). The same test-taking strategies were recommended by Fry(1989) and Oxford(1990) with the assumption that reading with a purpose would significantly improve efficiency and test results.

Research studies on the effects of reading strategies

Reading strategies have not just been identified and recommended for reading instruction. As we can see from the subsequent discussion, numerous studies have been conducted by researchers to investigate their function in facilitating reading comprehension.

Afflerbach(1990), for example, examined the function of prior knowledge on readers' main idea construction strategies in his study of expert readers. Afflerbach's research findings suggested that readers with more prior knowledge were more likely to construct the main idea automatically. When reading a familiar text, the reader would use what Afflerbach termed initial hypothesis strategy. In other words the prior knowledge of the content domain helped the reader anticipate the meaning of a text. According to schemata theory, certain cues in the text activated the reader's schemata which allowed the reader to generate hypotheses about the content and structure of the text. Afflerbach also discovered that the subjects (remember they were expert readers) with less prior knowledge tended to use a

cognitive strategy called draft-and-revision. This strategy allowed the reader to draft and store a main idea statement about the unfamiliar text, and then return to the text for more information to revise the statement. Afflerbach explained that the task of main idea construction (which was the result of comprehension) was more difficult for those readers without adequate background knowledge. Therefore the use of this strategy may compensate for the limited resources of working memory by transforming the task into two distinguishable subtasks. Afflerbach concluded that prior knowledge may facilitate comprehension process and may save the resources of working memory by automatizing the construction of the main idea for a text.

The importance of background knowledge has been examined by schema theorists. According to schema theory, comprehension is an interactive process involving, among other things, assimilation of new knowledge into existing schemata and accommodation of existing schemata to fit new knowledge. Research indicated that (a) lack of schemata or the failure to activate an appropriate schema can significantly impair comprehension, (b) appropriate content schema application can increase comprehension, and (c) comprehension is facilitated by explicitly introducing schemata through pre-reading activities (Scarcella & Oxford, 1992). Successful activation of the relevant previous knowledge and the use of that knowledge in comprehending a text is often an indication that distinguishes proficient readers from poor readers(Golinkiff, 1975-1976, Smith, 1967). Furthermore, as is indicated by Afflerbach's study, the reader's prior knowledge for the content of the text may significantly influence the nature of a reader's prediction strategy(1991).

The possibility of active interaction with a text through the use of reading strategies was also investigated by Nolan. Nolan(1991) claimed that comprehension difficulties were often related to readers' failure to participate actively in the

reading process. This very reality called for the integration of reading strategies into reading instruction to help students become strategic readers. Different from most researchers, Nolan looked at the effectiveness of combining two cognitive strategies: self-questioning strategy and prediction strategy. According to Nolan, self-questioning directed the readers' attention to critical aspects of the text, thus increasing understanding of important textual elements. Prediction provided a purpose for reading and activates a cognitive blueprint to guide the reader during reading. Moreover, prediction encouraged the reader to have a personal investment in the reading task. Nolan's research findings indicated that (a) combined strategies of self-questioning and prediction was more effective than any of the two separate strategies , and (b) the combined strategy produced the highest comprehension scores for students at all levels.

As we noted earlier, the study of memory strategies has been another focus in reading research. Various techniques have come under the heading of memory strategies such as creating mental/visual images, using sequential order, grouping, and story mapping. These techniques either facilitate mental operation by creating a visual representation of the events in the reader's mind or by organizing information into a systematic and meaningful structure so that it is easier to remember. Empirical research discovered that images of a story retained longer than verbal recall(Sadoski, Goetz, Olivarez, Lee & Mcheown,1982). Sadoski et al. claimed that imagery was associate with comprehension of deeper levels of information processing such as comprehension of the story's plot and theme. This research finding suggested that the use of images was a useful technique for narrative and expository writings. Similarly, story mapping has been proved to enhance retention and recall of major concepts of a written text(Holly, Dansereau, Mcdonald, Garland & Collins, 1979, Bech, Omansen & Mckeown, 1982). According to Oxford(1990), the mind's storage capacity for visual information exceeds its

capacity for verbal material. Visual images may effectively transfer large chunks of information to long-term memory and may also act as the most potent device to aid recall of verbal material.

The various techniques, skills and strategies we have discussed so far may fall into one of the following categories: cognitive strategies, compensation strategies, memory strategies and test-taking strategies. For many researchers, defining the stratagies is not an end in itself. They recommended the integration of reading strategies into regular classroom reading instruction(Miller & Perkins, 1989, Numrich, 1989, Oxford, 1990). These authors pointed out that a common problem existing in reading class was that the majority of time was spent on comprehension assessment rather than comprehension per se. They advocated a shift of emphasis from the products of comprehension to the process of comprehension. In other words, teachers should teach reading strategies and techniques rather than test comprehension. The reading strategies they recommended were similar to the ones that have constituted the focal point of research attention. Included were providing background information and content specific vocabulary, encouraging active prediction of the text based on prior knowledge, and using memory strategies to process and store information. In addition, test-taking strategies were also recommended with the assumption that reading with a purpose would significantly increase efficiency and improve test results (Fry, 1989, Oxford, 1990). However, research in the effects of integrating reading strategies into pre-reading instruction on students' comprehension was scarce. The present study sought to fill that vacancy.

Method

Subjects

29 students enrolled in a university preparatory English program in the English Language Institute in the University participated in the study. The sample consisted of 46.7%

Japanese, 16.7% Korean, 10% Saudi Arabian, 6.7% Chinese, 6.7% Brazilan, 6.7% Venezuelan, 3.3% Costa Rican and 3.3% Thailander. By sex, 20% of the sample were female and 80% male. The average age was 22. The average years of English learning was 7. 80% of the sample planned to study for an undergraduate degree, 10% would take graduate courses, and another 10% had plans other than educational enrichment.

Based on their pretest scores, age, and years of English

Table 1 A Comparison of the Characteristics Between the Experimentla Group and the Control Group

	experimental group	control group
mean of pretest scores *	4.93	5.21
number of subjects	15	14
average age	22	21.9
average years of English learning	7.21	6.67
instruments	1.Reader's Choice 2.Reading for Facts 3.Improving YOur Reading Ability	1.Reader's choice 2.Reading for Facts 3.Improving Your Reading Ability
pre-reading assistance	* key words explaination * introduction to background knowledge * strategies recommended * directions given to help use strategies	none

* Full score was 10.

learning, the students were randomly assigned to the experimental and control groups through match pair technique. From Table 1 we

can see that the experimental group and control group were approximately equal in terms of pretest scores, age, and years of English learning. Since I was interested in finding out the interaction effects of the methods and language levels, within the experimental group and control group I further divided the subjects into high language level and low language level based on their pretest scores. The language level was taken into consideration in the statistical analysis of the study.

Instrument

Three reading passages each with ten multiple-choice comprehension questions were administered to the students in both groups. The reading passages were taken from Reader's Choice, Reading For Facts, and Improving Your Reading Ability. The readability level for two of the passages was 9 and for the other one was 7. The length of the passages were 284, 970, and 500 respectively. Two passages were narrative writing and the other one was expository text. Great care went into choosing the passages so that the passage type would match reading strategies.

Before working on each passage, the experimental group students received pre-reading assistance. The pre-reading activities varied with the content and the difficulty level of the text. Mostly they took the form of key words explanation, background knowledge introduction, and suggested reading strategies. Detailed explanation was provided on how to apply the strategies to each reading passage. Within the same length of time, the control group students were asked to read a passage which had nothing to do with the upcoming text.

Before the experiment started, the subjects were pretested. The test passage was taken from Practical Faster Reading. It was a 500-word passage with ten multiple choice questions. The pretest provided the basis on which the subjects were assigned to two different groups. The three reading passages mentioned above were each treated as a separate posttest. Passge 1 was used to test the effects of memory and compensation strategies. Passage 2 was used to test the effects of cognitive and

compensation strategies. Passage 3 was used to test the effects of test-taking strategies only. In addition, a questionnaire and a survey were administered to the subjects to gather information about their educational backgrounds, academic expectations, and general use of reading strategies.

Procedures

Data collection took place over a three-week period during

Table 2 A Description of the Content and Reading Strategies For the Three Passages

Title	Content	Pre-reading assistance and suggested reading strategies *
Robin	a country boy's first visit to a city	1 Key words explanation 2 A brief summary 3 Form a mental picture of who, where, when, what, and how to grasp the main point. 4 Put yourself in the same situation and see how you feel. Ignore irrelevant information.
Pony express	a fast mail service in 1860s in U.S.	1 Key words explanation 2 A brief introduction to the background knowledge 3 Based on the given information predict the content of and the major elements in the text. 4 Stimulate active response to the passage by using the title, key words, topic sentence, and syntactic structure.
Alaska	the value of the state	1 Key words explanation. 2 Read the questions first, then look for the answers in the passage. 3 Only attend to the information related to the questions. Ignore irrelevant information.

* This was provided for the experimental group only.

the summer program in ELI at the University. The weekly reading tests were administered to the students as a part of the regular class activities. All the instructions and pre-reading assistance were provided in written form since the subjects were scattered over three classes. This was done to control the possible variation that could have been caused by different instructional styles of the teachers who administered the tests.For each test, the subjects were allocated a fixed length of time and they were not allowed to go back to the passage when they were answering the questions. All the test papers were scored by the researcher.

Results

A 2*2 ANOVA was conducted to analyze the data. instructional methods and language levels were treated as independent variables. Their main effects and interaction effects on the dependent variable of reading comprehension were examined. Since three passages were used to test the effects of different strategies on reading comprehension, statistical analysis was conducted for each of the three passages.

For reading passage 1 the hypothesis that the use of memory strategy and compensation strategy would produce positive effects on reading comprehension was supported. As it is indicated by ANOVA Table 3a, there was a main effect for the method: $F(1, 25) = 8.31$, $p < .01$. The main effect of the level and interaction effect of method by level were not up to the statistically

Table 3a 2*2 ANOVA Result For Passage 1

Source	DF	Type III SS	MS	F Value	Pr > F
Level	1	10.9700	10.9700	3.33	0.0800
Method	1	27.3755	27.3755	8.31	0.0080 **
Level* Method	1	8.5737	8.5737	2.60	0.1192

** $p < .01$

Table 3b 2*2 ANOVA Result For Passage 2

Source	DF	Type III SS	MS	F Value	Pr > F
Level	1	19.0806	19.0806	5.58	0.0263 *
Method	1	39.5414	39.5414	11.56	0.0023 **
Level* Method	1	1.9377	1.9377	0.57	0.4586

* $p < .05$ ** $p < .01$

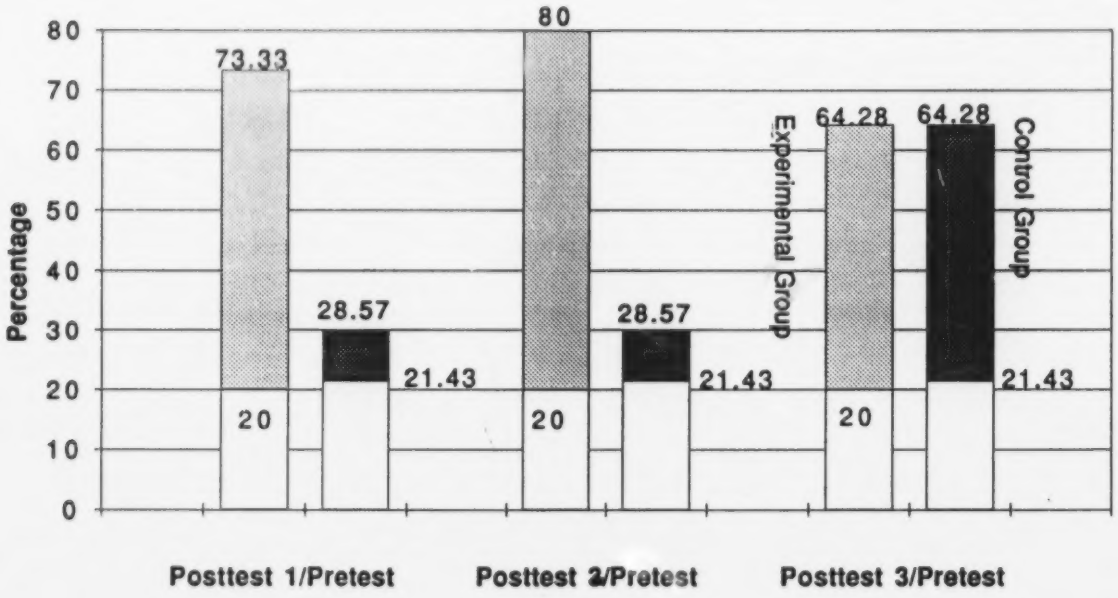
Table 3c 2*2 ANOVA Result For Passage 3

Source	DF	Type III SS	MS	F Value	Pr > F
Level	1	8.4337	8.4337	2.85	0.1039
Method	1	4.5627	4.5627	1.54	0.2260
Level* Method	1	1.8715	1.8715	0.63	0.4341

significant level: $F(1, 25) = 3.33$, $p > .05$, $F(1, 25) = 2.60$, $p > .05$. For reading passage 2 which was used to test the effects of cognitive strategy and compensation strategy on reading comprehension, there were main effects for the method ($F(1, 25) = 11.56$, $p < .01$) and for the level ($F(1, 25) = 5.58$, $p < .05$). Again the interaction effect of method by level was not up to the statistically significant level: $F(1, 25) = 0.57$, $p > .05$. Reading passage 3 was administered to examine the effects of test-taking strategy on reading comprehension. Even though the mean of the experimental group was higher than that of the control group (7.13 vs. 6.14), the difference was not statistically significant: $F(1, 25) = 1.54$, $p > .05$. Neither the main effect for the level nor the interaction effect between method and level was up to the statistically significant level ($F(1, 25) = 2.85$, $p > .05$, $F(1, 25) = 0.63$, $p > .05$).

The effects of the reading strategies on reading

Figure 1 Graphic Presentation of the Increase in the Percentage of Students Who Reached at Least 70% Comprehension Accurancy (Bottom Numbers for Pretest, Numbers for Posttests, Shadow Parts for Differences)



comprehension can also be detected from the change in the percentage of students who obtained at least 70% accuracy (got atleast seven out of ten items right) since 70% accuracy is regarded by some researchers as the comprehension criterion for fast reading (Luo, 1987, Fry, 1989). As can be seen from Figure1, from pretest to posttest 1(passage 1) the increase in the percentage of students who obtained at least 70% accuracy was 53.33 for the experimental group and 7.14 for the control group. As to the increase from pretest to posttest 2(passage 2), the difference between the two groups was even greater with the experimental group obtaining an increase of 60 and the control group only having an increase of 7.14 in its number of students who got at least 70% accuracy. Obviously, the introduction of reading strategies in pre-reading instruction produced striking benefits for the experimental group students. For posttest 3 (passage 3) the difference between the experimental group and the control group was not that large. The increase in the percentage of the students who obtained at least 70% accuracy in the experimental group was 46.66 whereas in the control group it was 42.85. However, since the two group means for reading passage 3 were not far apart. This was consistent with the result of ANOVA which indicated that the test-taking strategy did not manifest staticstically significant advantage over the conventional method in improving students' comprehension.

Discussion and Conclusion

The results of the statistical analysis above indicated that the introduction of reading strategies, particularly memory strategy, cognitive strategy and compensation strategy, did help the experimental group students make more improvement in reading comprehension than the control group students. This lent support to previous research findings that (a) the introduction of background knowledge through reading instruction may help the reader activate or modify the existing schema which will then lead to better comprehension of a text (Scarella & Oxford, 1992), (b) the use of mental imagery was a useful technique for

comprehending the plot or theme of narrative writing (Sadoski, Goetz, Okivarez, Lee & Mcheown, 1982), and (c) combined strategies were more effective than any of the two separate strategies (Nolan, 1991).

The introduction of various techniques and strategies in pre-reading instruction was useful because it intensified the reader's active interaction with a text. The reader was encouraged and assisted to activate what he already knew about the topic and use that knnowledge to recieve, process and comprehend the new information. Under such circumstances,reading became an active mental process and the reader found himself in a better position to control learning. Moreover, the activation of previous knowledge, the use of prediction strategy and images called for more cognitive investment on the part ofthe reader and thus could make the reading process more challenging and interesting.

One research finding form this study was that test-taking strategy did not enable the experiemental group to obtain more improvement in comprehension. A number of explanations seem plausible. First of all, the pre-reading assistance for passage 3 was rather simple. No background information was provided for the experimental students. The major difference between the experimentl group and control group was that the experimental group students could read the questions first before they read the passage. The rational was that with questions in their mind reading could become more focused. However, for those students who lacked background and syntax knowledge, this assistance was inadequate. Had more assistance been provided, the results would have been different. Remember for passage 1 and 2 we recommded a combination of strategies and the results were more effective. For passage 3, only test-taking strategy was recommeded and it did not help the experimental group students very much. The conclusion derived from here was that a combination of strategies could work better than a single strategy. This was consistent with Nolan's (1991) research finding. It should be realized that

a proficient reader needs to have a veriety of strategies at his/her disposal and may use any one of them in the reading process as needed.

Another explanation for the fact that test-taking strategy did not help the experimental group students make more improvement in comprehension is that developing test-taking strategy is a time-consuming task. It demands a lot of practice on the part of the reader. Students need to go through a trying-reflecting-trying-again process before they can master and apply this strategy in reading. Since the study was done on a one shot basis (no similar training was provided before the test was given), the students might not be used to the technique. It takes time for anyone to become an experienced test-taker, let alone these non-native learners. It is advisable to integrate test-taking strategies into regular classroom teaching and practice so that students are allowed a period of time to hone their skills.

We also noticed from the statistical analysis that the interaction effects between method and language level were not statistically significant. This means that there was no interaction effect between the reading level of the reader and the teaching method used. However, on two reading passages the experimental group out performed the control group. This suggests that the use of at least three of the strategies made a difference which was statistically significant at the .01 level. Language level was statistically significant at the .05 level for the second reading passage. This suggests that level may have the potential to effect the use of reading strategies. Which reading strategies work better with certain level of readers? Right now we are unable to answer this question. It is advised that the study be replicated with a larger sample with comparable reading passages. It appears that in general the use of reading strategies improves reading comprehension for ESL learners.

References

Afflerbach, P.P. (1990). The influence of prior knowledge on expert readers' main idea construction strategies, Reading Research Quarterly, 25(1), 31-46.

Beck, I. L., Omansen, R.C. & Mckeown, M. G.(1982). An instructional redesign of reading lessons: Effects on comprehension. Reading Research Quarterly, 17, 462-681.

Fry, E. B.(1989). Reading Drills for Speed and Comprehension. Jamestown Publishers.

Golinkoff, R. M.(1975--1976). A comparison of reading comprehension processes in good and poor comprehenders. Reading Research Quarterly, 11(4), 623-659.

Holley, C. Dansereau, D. F. Mcdonald, A. Garland, J. C.& Collins, K. W.(1979). Evaluation of a hierarchical mapping technique as an aid to prose processing. Contemporary Educational Psychology, 4, 227-237.

Jacobs, M. L.(1985). GED Scorebooster2. Steck Vaughn Company.

Luo, S. (1987). Advanced Fast Reading. Chongqing University Press.

Miller, L. D. & Perkins, K. (1989). ESL reading comprehension institution. ED 303779 Conference Paper.

Nolan, T. E(1991). Self-questioning and prediction: Combining metacognitive strategies. Journal of Reading, 35 (2), 132-138.

Numrich, C.(1989). Cognitive strategies for integrating ESL and content area instruction. ED314959 Conference Paper.

Olsen, M. & Gee, T.(1991). Content reading instruction in the primary grades: Perceptions and strategies. Reading Teacher, 45(4), 298-307.

Oxford, R. L.(1990). Language Learning Strategies: What every teacher should know. Newbury House Publishers.

Pritchard, R.(1990). The effects of cultural schemata on reading processing strategies. Reading Research Quarterly, 25(4), 273- 295.

Reutzel, D. R.(1984). Story mapping: An alternative approach to comprehension. Reading World, 24(2), 17-25.

Sadoski, Goetz, Olivarez, Lee & Roberts(1990). Imagination in story reading: The role of imagery, verbal recall, story analysis, and processing levels. Journal of Reading Behavior, 22(1), 55-70.

Scarcella, Oxford, R. C.(1992). The Tapestry of Language Learning in print.

Sinatra, R. & Dowd, C. A.(1991). Using syntactic and semantic clues to learn vocabulary. Journal of Reading, 35(3), 224-229.

Smith, H. K.(1967). The responses of good and poor readers when asked to read for different purposes. Reading Research Quarterly, 1967-68(3), 53-83.